**Finlay Warsop Thomas**

She/Her

Email: fwarsopt@asu.edu

**Education**

**PhD, Microbiology**

**BSc. (Hons), Biology with French Language**First class degree with honours.

Arizona State University

The University of Manchester

**2021 – Present**

**2017 – 2021**

**Research Experience**

**2021 – Present, Arizona State University**

My research in the group of Ferran Garcia-Pichel focuses on the role of symbiotic interactions in biological soil crusts, particularly through the axis of nutrient exchange between cyanobacteria and their heterotrophic partners. My work combines both laboratory methods, including compressed gas usage, EA-IRMS, genetic manipulation, and classical microbiology techniques with fieldwork at an NSF-funded long term ecological research site.

**2021, Manchester Institute of Biotechnology**

I spent four months working in the laboratory of Michael Buckley, using mass spectrometry to identify ancient faunal remains from their collagen sequences. I completed my undergraduate thesis project using this technique, also known as ZooMS, on samples from Grotte Mandrin, France in the context of Neanderthal diet. I then collaborated with researchers from the University of Witwatersrand to use this same technique on samples from Grassridge Rockshelter, South Africa, with the results currently in preparation for publication.

**2019 – 2020, INRAE**

I completed a 7 month laboratory placement at INRAE in France, Europe’s leading institute for environmental and agricultural research. I worked in the department of plant-microbe interactions to investigate the experimental evolution of the phytopathogen *Ralstonia solanacearum* into a rhizobial symbiote. My role was to evaluate the progression in symbiotic phenotypes over 40 cycles of evolution, comparing bacterial fitness, nodule health, and nitrogen fixation. I also began to investigate candidate mutations that were advantageous to symbiosis. Additionally, I participated in a COST EuroXanth training school focusing on the study of bacteria *in planta*, studying techniques including flow cytometry, ribodepletion, and fitness indexes. I participated in lab meetings and presented my findings to my group on several occasions. I additionally attended numerous seminars from visiting researchers and doctoral thesis defences.

**2017, Operation Wallacea**

I participated in a research expedition to Honduras with Operation Wallacea, gaining practical ecology skills in tropical rainforest and coral reef environments. I worked as part of a team of students and professional researchers to carry out surveying methods such as transects, quadrats, species counts, mist netting, DNA swabbing, as well as qualifying as a PADI scuba diver.

**Publications and Awards**

**2022**: Recipient of Jornada LTER Summer Fellowship Award, administered by the NSF

Nelson, C., Giraldo-Silva, A., **Warsop Thomas, F**., and Garcia-Pichel, F. *Spatial self-segregation of pioneer cyanobacterial species drives microbiome organization in biocrusts.* ISME COMMUN. 2, 114 (**2022**). <https://doi.org/10.1038/s43705-022-00199-0>

**Teaching Experience**

**2023:** MIC 206 Microbiology Laboratory

**2022:** MBB 343 Genetic Engineering and Society

**2019:** Workshop for high school students at Manchester Museum teaching DNA extraction and genetic techniques used in conservation.

**Outreach and Committee Positions**

**2022 – Present** Ask a Biologist: I participate in the ASU ‘Ask a Biologist’ programme and respond to questions asked by students in the lower school system.

**2022 – Present** Jornada LTER DEI Committee: I am a member of the DEI committee at Jornada LTER, a group who aims to promote equitable policy and actionable strategies for this site.

**2021** Student-staff liaison committee, University of Manchester: I served as the course representative for biosciences, acting as a mediator between the wider student body and faculty members. I collected comments and concerns and communicated them at committee meetings.

**References**

Available on request.